

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1-13. (Canceled)

Claim 14. (Previously Presented) A method for solvent deparaffinization of paraffinic mineral oil distillates, comprising:

adding a dewaxing additive and a solvent to said paraffinic mineral oil distillates, to obtain a solvent-paraffinic mineral oil mixture;

stirring until a clear solution results;

cooling the solution to below -20°C at a defined rate, thereby forming paraffin crystals which form a filter cake which is porous and permeable to the solution; and

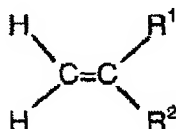
separating said paraffin crystals from said solution by filtration;

increasing a filtration volume per filtration time compared to the filtration volume per filtration time using no dewaxing additive; and

obtaining deparaffinized mineral oil distillates;

wherein said dewaxing additive comprises a copolymer of the following free-radically polymerizable monomers of Formulae A and B:

Formula A:



wherein

$\text{R}^1 = \text{H or CH}_3$,

R^2 = phenyl, benzyl, naphthyl, anthranyl, phenanthryl, N-pyrrolidonyl, N-imidazolyl, 2-pyridyl, 4-pyridyl or an alkyl-substituted aromatic substituent or

$R^2 = \text{COOR}^3$ where $R^3 = \text{H}$ or R^3 is a linear or branched alkyl radical of $\text{C}_1\text{-C}_{10}$

or

R^3 is a heteroatom-substituted radical $-(\text{CH}_2)_n\text{X}$ where $\text{X} = \text{OH}$ or $\text{X} = \text{N}(\text{R}^4)_2$

wherein $n = 1\text{-}10$ and R^4 is in each case independently H or $\text{R}^4 = \text{C}_1\text{-C}_4\text{-alkyl}$

or

R^3 is $-(\text{CH}_2\text{CH}_2\text{O})_m\text{R}^5$ wherein $m = 1\text{-}90$ and $\text{R}^5 = \text{H}$ or $\text{R}^5 = \text{C}_1\text{-C}_{18}$ or R^3 is a benzyl, phenyl or cyclohexyl radical

or

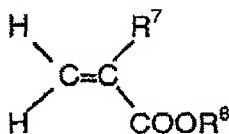
$R^2 = \text{CONHR}^6$ wherein $\text{R}^6 = \text{H}$ or R^6 is a linear or branched alkyl radical of $\text{C}_1\text{-C}_{10}$

or

R^6 is a heteroatom-substituted radical $-(\text{CH}_2)_n\text{X}$ where $\text{X} = \text{OH}$ or $\text{X} = \text{N}(\text{R}^4)_2$

wherein $n = 1\text{-}10$ and R^4 is in each case independently H or $\text{R}^4 = \text{C}_1\text{-C}_4\text{-alkyl}$;

Formula B:



wherein $\text{R}^7 = \text{H}$ or CH_3 , and

R^8 radical = linear or branched alkyl radicals of $\text{C}_{12}\text{-C}_{40}$, and,

optionally further customary dewaxing additives.

Claim 15. (Previously Presented) The method according to Claim 14, wherein the addition rate of the copolymer is 0.005-0.5%.

Claims 16-25. (Cancelled)

Claim 26. (Previously Presented) The method according to Claim 14, wherein said paraffin crystals grow epitaxially.

Claim 27. (Previously Presented) The method according to Claim 14, comprising:
adding said dewaxing additive to said paraffinic mineral oil distillates at a temperature above the cloud point of said mineral oil.

Claims 28-30. (Canceled)

Claim 31. (Previously Presented) The method according to Claim 14, wherein the proportion by weight of the monomer A in the total weight of the copolymer is 0.1-70%.

Claim 32. (Previously Presented) The method according to Claim 14, wherein at least 50% of the monomers B contain alkyl radicals R^8 of chain length greater than or equal to C_{16} .

Claim 33. (Previously Presented) The method according to Claim 14, wherein the monomers of formula A consist of one or more monomers selected from the group consisting of styrene, butyl methacrylate, methyl methacrylate, 2-ethylhexyl methacrylate and mixtures thereof.

Claim 34. (Previously Presented) The method according to Claim 14, said dewaxing additive further comprising one or more homo- or copolymers which are polyalkyl methacrylates and have alkyl substituents of chain length C_1 - C_{24} .

Claim 35. (Previously Presented) The method according to Claim 34, wherein the homo- or copolymers which are polyalkyl methacrylates have alkyl substituents of chain length C₁₂-C₁₈.

Claim 36. (Previously Presented) The method according to Claim 34, wherein a ratio of the copolymers and the homo- or copolymers which are polyalkyl methacrylates is 1:20 to 20:1.

Claim 37. (Previously Presented) The method according to Claim 34, wherein the homo- or copolymer is a polyalkyl methacrylate which contains up to 20% by weight of C₁-C₁₀ methacrylates.

Claim 38. (Previously Presented) The method according to Claim 14, wherein the dewaxing additive is a solution of the copolymer in an oil of the paraffinic or naphthenic type, or in an organic solvent.

Claim 39. (Previously Presented) The method according to Claim 38, wherein the organic solvent is selected from the group consisting of toluene, methyl-ethyl-ketone, xylene, naphtha and mixtures thereof or wherein the organic solvent is propane.

Claim 40. (Previously Presented) The method according to Claim 14, wherein the dewaxing additive comprises
a copolymer of behenyl acrylate and styrene.

Claim 41. (Previously Presented) The method according to Claim 14, wherein the dewaxing additive comprises

a copolymer of behenyl acrylate and at least one member selected from the group consisting of n-butyl methacrylate, isononyl methacrylate, and benzyl methacrylate.

Claim 42. (Previously Presented) The method according to Claim 14, wherein the dewaxing additive consists of:

a copolymer of behenyl acrylate and styrene.

Claim 43. (Previously Presented) The method according to Claim 14, in which the obtained deparaffinized mineral oil distillates show an increased degree of dewaxing compared to a method in which a styrene-free dewaxing aid is used.

Claim 44. (New) The method according to Claim 14, wherein said filtration volume per filtration time is increased by at least 10% compared to the filtration volume per filtration time using no dewaxing additive.

Claim 45. (New) The method according to Claim 14, wherein said filtration volume per filtration time is increased by at least 20% compared to the filtration volume per filtration time using no dewaxing additive.

Claim 46. (New) The method according to Claim 14, wherein said filtration volume per filtration time is increased by at least 30% compared to the filtration volume per filtration time using no dewaxing additive.